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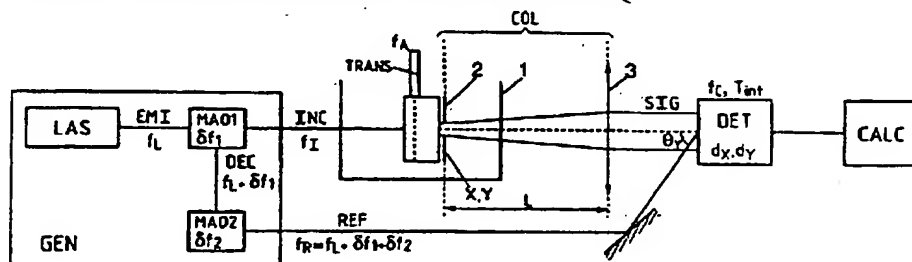
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(54) Title: MEHTOD AND DEVICE FOR OPTO-ACOUSTICAL IMAGERY

(54) Titre: PROCEDE ET INSTALLATION D'IMAGERIE ACOUSTO-OPTIQUE



(57) Abstract: The inventive method for opto-acoustical imagery of an image object (OBJ) consists in a) generating an incident optical wave (INC) and a reference optical wave (REF) coherent therewith, b) oscillating the image object (OBJ) area at an acoustic frequency, c) sending the incident wave (INC) to said image object (OBJ), thereby generating a diffused signal wave (DIF), d) sending at least one part of said diffused signal wave (DIF) to a detection device (DET), e) sending the reference optical wave (REF) to the detection device (DET) avoiding the image object (OBJ), thereby generating an interferogram  $I(x, t)$ , f) extracting digital information from said interferogram  $I(x, t)$ , and in g) obtaining co-ordinates (U, V, W) from one measurement point of the image object (OBJ) associated to said digital information.

(57) Abrégé: Un procédé d'imagerie acousto-optique d'un objet à imager (OBJ) comprend les étapes consistant à (a) générer une onde optique incidente (INC), et une onde optique de référence (REF), cohérente avec l'onde incidente (INC), (b) faire vibrer à une fréquence acoustique une zone de l'objet à imager (OBJ), (c) appliquer l'onde incidente (INC) sur l'objet à imager (OBJ), et générer ainsi une onde signal diffusée (DIF), (d) appliquer au moins une partie de l'onde signal diffusée sur un dispositif de détection (DET), (e) appliquer l'onde de référence (REF) sur le dispositif de détection (DET) sans la faire passer à travers l'objet à imager (OBJ), ce qui génère un interférogramme  $I(x, t)$ , (f) extraire de l'interférogramme  $I(x, t)$  une information numérique, et (g) obtenir les coordonnées (U, V, W) d'un point de mesure de l'objet à imager (OBJ) auquel l'information numérique est relative.

RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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*For an explanation of the two-letter codes and the other abbreviations, reference is made to the explanations ("Guidance Notes on Codes and Abbreviations") at the beginning of each regular edition of the PCT Gazette.*